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January 31, 2011

Darcy E. Endo-Omoto
Vice President
Government & Community Affairs

The Honorable Chairman and Members of
the Hawaii Public Utilities Commission
465 South King Street
Kekuanaoa Building, 1st Floor
Honolulu, Hawaii 96813

PUBLIC UTILITIES
COMMISSION

2011 JAN 31 P 4:15

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Dear Commissioners:

Subject: Hawaiian Electric Company, Inc.,
Hawaii Electric Light Company, Inc.
Maui Electric Company, Limited
2010 Net Energy Metering Status Report

Hawaiian Electric Company, Inc., Hawaii Electric Light Company, Inc. and Maui Electric Company, Limited respectfully submit their 2010 Net Energy Metering Status Report, which provides the total number of installations and the total rated generating capacity of net metered customer facilities in each of their service territories.

If you have any questions on this matter, please call Dean Matsuura at 543-4622.

Sincerely,

Attachment

cc: Division of Consumer Advocacy

Net Energy Metering Status Report

Hawaiian Electric Company, Inc.
Hawaii Electric Light Company, Inc.
Maui Electric Company, Limited

December 31, 2010

Background

Sections 269-101 to 269-111, Hawaii Revised Statutes, as amended, require net energy metering ("NEM") to be available to eligible customer-generators with a capacity of not more than 50 kilowatts until the total rated generating capacity of eligible customers equals 0.5 percent of the electric utility's system peak demand. Systems must meet all applicable safety and performance standards and systems 10 kilowatts or less are exempt from additional requirements to install additional controls, perform or pay for additional tests or purchase additional liability insurance. Hawaiian Electric Company, Inc. ("HECO"), Hawaii Electric Light Company, Inc. ("HELCO") and Maui Electric Company, Limited ("MECO") (collectively, "the Utilities") were among the supporters of this legislation.

The NEM law states that eligible customers who own and operate a solar, wind turbine, biomass, or hydroelectric energy generating facility, or a hybrid system consisting of two or more of these facilities, with a capacity of not more than 50 kilowatts, shall be credited at the retail rate (of the rate class the customer is normally assigned to) for electrical energy generated by the eligible customer-generator and fed back to the electric grid. Over a monthly billing period, the difference (i.e., net) between the customer-generated electrical energy and the electrical energy supplied through the electric grid is determined. In essence, customers are able to "bank" the excess renewable energy they generate and feed into the Utilities' grid for later use.

The Utilities are required to do a twelve-month reconciliation of the net electricity provided by the utility with the electricity generated by the customer-generator and any unused monetary credits from the customer-generator carried over from prior months since the last twelve-month reconciliation period, and provide in each regular bill information on net electricity production and consumption, monetary balances, and credits. Excess electricity generated by the customer-generator in each billing period is carried over to the next month as a monetary credit within each twelve-month period.

On April 10, 2006, the Public Utilities Commission of the State of Hawaii ("Commission") issued Order No. 22380 in Docket No. 2006-0084, opening an investigative proceeding to address whether the Commission should increase: (1) the maximum capacity of eligible customer-generators to more than 50 kilowatts; and (2) the total rated generating capacity produced by eligible customer-generators to an amount above 0.5 percent of an electric utility's system peak demand.

On September 21, 2006, the Commission issued Order No. 22884 in Docket No. 2006-0084 to amend the Stipulated Procedural Order (filed on August 14, 2006) to include whether the Commission should adopt, modify, or decline to adopt, in whole or in part, the NEM standard articulated in PURPA as amended by the Energy Policy Act of 2005.

On March 13, 2008, the Commission issued Decision and Order ("D&O") No. 24089 approving the stipulated agreement reached by the parties of the docket submitted by the Utilities on September 17, 2007. The Commission approved the stipulated agreement reached by the parties that:

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- Increases the maximum size of the eligible customer-generator that can qualify for a NEM agreement from 50 kW to 100 kW;
- Increases the total rated generating capacity produced by eligible customer-generators from 0.5% to 1.0% of the utility's system peak demand;
- Reserves 40%, 50%, and 50% of the total rated generating capacity produced by eligible customer-generators for HECO, HELCO, and MECO, respectively, for residential and smaller commercial NEM customers (system sizes of 10 kW or less);
- Utilizes the Integrated Resource Planning ("IRP") process to evaluate impacts to the Utilities' systems and determine further adjustments to the NEM system size and cap limits (limits re-examined on an annual basis); and
- Recommends that the Commission not adopt or modify the standard for NEM as articulated in the Public Utility Regulatory Policies Act of 1978 ("PURPA") as amended by the Energy Policy Act of 2005.

In addition to the agreed-upon terms of the stipulation, the Commission ordered that the Utilities design and propose a NEM Pilot Program for the Commission's review and approval, which will allow on a trial basis a limited number of larger generating units for NEM.

On April 28, 2008, the Utilities filed with the Commission a proposed NEM Pilot Program to investigate the impacts of large NEM systems on the electric grid. Multiple discussions were held with the Hawaii Renewable Energy Alliance ("HREA") and the Hawaii Solar Energy Association ("HSEA") to gain feedback on the proposed program so that industry considerations are adequately addressed. On September 25, 2009, the Commission issued its Feed-in Tariff ("FIT") D&O in Docket No. 2008-0273. After the issuance of the FIT D&O, HREA, HSEA, and the Utilities (collectively known as "Parties") met to discuss the implications of the FIT D&O on the NEM Pilot Program. After significant consideration and discussion, the Parties concluded a number of significant developments have occurred since the NEM Pilot Program was envisioned. There are now a number of planned and on-going studies which would utilize available federal funding and industry involvement, which are likely to provide a more accurate gauge of distributed generation growth and achieve the same benefits and lessons that were contemplated by conducting a NEM Pilot Program. A stipulated¹ letter to the Commission was submitted on December 18, 2009 on the status of the proposed NEM Pilot Program informing the Commission that the Utilities' NEM Pilot Program, as proposed on April 28, 2008, is no longer necessary. On January 13, 2011, the Commission issued an Order Regarding Net Energy Metering Proposals which, among other things, denied the December 18, 2009 stipulation and ordered the HECO Companies to continue development of the pilot program.

Based on a review in mid 2008 of approved, pending, and planned systems expected to apply for NEM status, it was forecasted that these systems would exceed the recently-approved NEM system caps for HELCO and MECO by the end of 2008. Consistent with the NEM review process within IRP established by D&O 24089, adjustments to the NEM system cap were proposed to the HELCO and MECO Integrated Resource Planning ("IRP") Advisory Groups in July 2008. There were no objections to HELCO and MECO proposals. As a result, on

¹ See letter from the Consumer Advocate, Hawaiian Electric Companies, HREA, and HSEA (collectively referred to as the "NEM Parties") to the Commission in Docket No. 2006-0084, filed December 18, 2009.

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September 30, 2008, HECO and the Division of Consumer Advocacy of the State of Hawaii Department of Commerce and Consumer Affairs ("Consumer Advocate") filed stipulations for Commission approval under the HELCO IRP-3 docket (Docket No. 04-0046) and MECO IRP-3 docket (Docket No. 04-0077) on proposed changes to the NEM system caps for HELCO and MECO, respectively.

On December 3, 2008, in response to a request by the Commission (in a letter dated October 10, 2008) to file the stipulations in the NEM docket (Docket No. 2006-0084), HELCO, MECO and the Consumer Advocate filed their stipulations on the proposed changes to the NEM system caps for HELCO and MECO.

On December 26, 2008, the Commission issued an Order Approving, in Part, and Denying, in Part, Stipulations filed on December 3, 2008 ("December 26, 2008 Order") that:

- The increased NEM limits for HELCO and MECO, as proposed in the Stipulations, are approved.
 - NEM system cap from 1% to 3% of system peak demand; and
 - HELCO and MECO will reserve 40% of the NEM system cap for NEM systems of 10 kW or less and 60% of the NEM system cap for systems larger than 10 kW.
- HELCO and MECO will increase the system cap from 3.0% to 4.0% of system peak demand at the point when approved NEM applications equal or exceed 75% of the existing system peak demand cap for either the 10kW and less or greater than 10kW NEM eligible systems, for their respective Company. HELCO and MECO will notify the commission when this increase in the system cap to 4.0% of system peak demand goes into effect.
- The review of future increases in NEM system caps in IRP processes is denied due to the closing of IRP dockets by the Commission.

The parties to Docket No. 2006-0084 shall submit a stipulated proposed plan to address the Utilities' and Consumer Advocate's NEM agreement as set forth by the Energy Agreement and inform the Commission of any new review process for considering future increases to the NEM limits.

On October 20, 2008, the Governor of the State of Hawaii, the State of Hawaii Department of Business, Economic Development and Tourism, the Division of Consumer Advocacy of the Department of Commerce and Consumer Affairs, and the Utilities entered into an Energy Agreement. Among the numerous commitments contained in the Energy Agreement was the agreement that there should be no system-wide caps on NEM, and instead, distributed generation, including NEM, feeding into a circuit shall be limited on a per-circuit basis to no more than 15% of peak circuit demand for all distribution-level circuits of 12 kV or lower. For circuits approaching the 15% limit, the Utilities will perform a circuit-specific analysis to determine if the limit can be increased. In addition, the Energy agreement states that NEM will be replaced with an appropriate feed-in tariff and new NEM installations shall be required to utilize time-of-use metering equipment and rates. (See Energy Agreement Section 19, Net Energy Metering.) On August 14, 2009, the Utilities and the Consumer Advocate submitted their Proposed Plan to Address NEM, as set forth in the Energy Agreement. The Utilities

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proposed to move forward on the planned removal of the system-wide cap for NEM. A stipulation² between the Utilities and the Consumer Advocate was filed with the Commission on January 7, 2010. On January 13, 2011, the Commission issued an Order Regarding Net Energy Metering Proposals which, among other things, approved with conditions, the January 7, 2010 stipulation.

Another commitment contained in the Energy Agreement, was the agreement to replace the current Integrated Resource Planning process with a new Clean Energy Scenario Planning ("CESP") Process. (See Energy Agreement Section 32, CESP.) On February 11, 2009, the Utilities and the Consumer Advocate filed a stipulated letter requesting that any potential increases to the Utilities NEM limits be reviewed in each of the Utilities' CESP process in the same manner as the Parties agreed in their stipulation filed on September 17, 2007 and approved by D&O No. 24089. On October 27, 2009, pursuant to the Commission's March 25, 2009 letter, the Utilities provided additional briefing³ on a proposed process to consider any future increases to the existing Utilities' NEM limits.

On March 22, 2010, MECO notified the Commission that it would be increasing its NEM system cap from 3.0% to 4.0% of system peak demand.⁴ In addition, MECO emphasized that the allocations for the small systems with a generator size of 10kW and less, would represent a reservation for these particular project sizes, in other words a floor rather than a ceiling to availability of the program capacity. On April 28, 2010, HELCO filed a similar notification to the Commission that it would be increasing its NEM system cap from 3.0% to 4.0% of system peak demand.

On August 24, 2010, HECO and the Consumer Advocate filed a stipulation to increase its NEM system cap from 1% to 2% of system peak demand and reserve 40% of the 2.0% system peak demand for small systems with a generator size of 10kW and less. On January 13, 2011, the Commission issued an Order Regarding Net Energy Metering Proposals which, among other things, dismissed the August 24, 2010 stipulation as moot.

Status

The following table provides the status of NEM in the HECO, HELCO, and MECO service territories as of December 31, 2010. In addition, a report on the estimates of the rate and revenue impact of NEM participation is shown in Appendix A.

² A stipulation between the Utilities and the Consumer Advocate was filed with the Commission on January 7, 2010 recommending the removal of the Net Energy Metering System Cap with the adoption of the Rule 14H modifications and the establishment of Reliability Standards. The maximum size of eligible customer-generator that qualifies for a NEM arrangements remains unchanged at 100 kW.

³ See letter from the Utilities to the Commission dated October 27, 2009, Docket No. 2006-0084 - Net Energy Metering (NEM).

⁴ See December 26, 2008 Order.

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NEM Status as of 12/31/10

| | Information packets sent | No. of Installations ⁵ | Installed kW ⁶ | NEM System Cap ⁷ , kW |
|--------------|--------------------------|-----------------------------------|---------------------------|----------------------------------|
| HECO | | | | |
| 2001 | 151 | 1 | 3.60 | 5,955 |
| 2002 | 12 | 1 | 2.10 | 6,020 |
| 2003 | 49 | 8 | 11.74 | 6,210 |
| 2004 | 15 | 3 | 7.90 | 6,405 |
| 2005 | 5 | 0 | 0 | 6,150 |
| 2006 | 23 | 10 | 74.28 | 6,330 |
| 2007 | 67 | 73 | 387.29 | 6,080 |
| 2008 | 132 | 221 | 2,362 | 11,860 |
| 2009 | 111 | 511 | 2,430 | 12,130 |
| 2010 | * | 1,326 | 7,286 | 11,620 |
| Total (HECO) | 565 | 2,154 | 12,565 | |

⁵ Completed systems (i.e., NEM Agreements completed).

⁶ Installed kW reflects rated generating capacity installed in the year noted. Includes system expansions.

⁷ Based on 0.5% of system peak in 2001-2007, 1.0% of system peak in 2008-2010 for HECO. Based on 0.5% of system peak in 2001-2007, 3% of system peak in 2008-2009, and 4% system peak 2010 for HELCO and MECO. Based on Net System Peak for HECO, HELCO, and MECO-Maui and Gross System Peak for MECO-Molokai and MECO-Lanai.

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NEM Status as of 12/31/10 (cont.)

| | Information packets sent | No. of Installations ⁶ | Installed kW ⁷ | NEM System Cap ⁷ , kW |
|---------------|--------------------------|-----------------------------------|---------------------------|----------------------------------|
| HELCO | | | | |
| 2001 | 122 | 2 | 10.20 | 871 |
| 2002 | 25 | 3 | 4.73 | 890 |
| 2003 | 13 | 6 | 28.00 | 934 |
| 2004 | 12 | 4 | 8.84 | 972 |
| 2005 | 17 | 10 | 58.27 | 985 |
| 2006 | 12 | 35 | 299.57 | 1,007 |
| 2007 | 24 | 35 | 263.15 | 1,017 |
| 2008 | 23 | 115 | 782.08 | 5,946 |
| 2009 | 30 | 265 | 1,989 | 5,838 |
| 2010 | * | 371 | 2,268 | 7,624 |
| Total (HELCO) | 278 | 846 | 5,712 | |
| MECO | | | | |
| 2001 | 49 | 2 | 8.20 | 993 |
| 2002 | 19 | 5 | 8.80 | 1,006 |
| 2003 | 24 | 3 | 13.00 | 1,047 |
| 2004 | 29 | 8 | 21.60 | 1,091 |
| 2005 | 22 | 16 | 92.15 | 1,068 |
| 2006 | 49 | 50 | 233.47 | 1,091 |
| 2007 | 13 | 64 | 359.81 | 1,081 |
| 2008 | 15 | 135 | 947 | 6,171 |
| 2009 | 0 | 298 | 2,336 | 6,317 |
| 2010 | * | 342 | 1919 | 8,397 |
| Total (MECO) | 220 | 923 | 5,939 | |
| TOTAL | * | 3,923 | 24,216 | |

* NEM information and forms are made available on the web and therefore, not tracked for the respective Companies.

Appendix A

The attached pages provide illustrative estimates of lost contributions to fixed cost in 2011 and associated estimated rate impact, based on NEM installations as-of year-end 2010. There is no bill impact on non-NEM customers until HECO, HELCO, or MECO propose and receive Commission approval to adjust rates upward to cover the NEM lost contribution to fixed cost. At that point, any rate adjustment will apply to both NEM customers (to the extent that they pay for kWh) and non-NEM customers.

HECO

Estimated Lost Contribution to Fixed Cost in 2011, based on NEM installations as-of year-end 2010

| Rate | kW | Total Hours in Year ¹ | Estimated Capacity Factor ² | Total Lost kWh/yr | Base Energy Rate ³ , cents/kWh | Production Energy Rate ⁴ , cents/kWh | Lost Contribution to Fixed Cost, cents/kWh | Total Lost Contribution to Fixed Cost, \$/Yr |
|-------|----------|-------------------------------------|--|----------------------|--|---|--|--|
| | A | B | C | D = A * B * C | E | F | G = E - F | H = D * G / 100 |
| R | 6,489.7 | 8,760 | 17.0% | 9,664,461 | 17.2052 | 10.7000 | 6.5052 | \$628,693 |
| G | 912.5 | 8,760 | 17.0% | 1,358,895 | 15.9186 | 10.7470 | 5.1716 | \$70,277 |
| J | 5,163.6 | 8,760 | 17.0% | 7,689,633 | 11.9990 | 10.7150 | 1.2840 | \$98,735 |
| Total | 12,565.8 | | | 18,712,989 | | | | \$797,705 |

Estimated Impact on Rates in 2011, based on NEM installations as-of year-end 2010

| Rate | Total Lost Contribution to Fixed Cost, \$/Yr | Forecast 2011 Sales ⁵ kWh/Yr | Estimated Impact on Rates, ¢/kWh |
|-------|--|---|--|
| | I = H | J | K = (I / J) * 100 |
| R | \$628,693 | 2,054,500,000 | 0.03 |
| G | \$70,277 | 337,204,000 | 0.02 |
| J | \$98,735 | 2,083,196,000 | . |
| Total | \$797,705 | 4,474,900,000 | |

Notes:

- 1 There are 8760 hour in a non-leap year, and 8784 hours in a leap year.
- 2 Source: Estimated value
- 3 Source: Base Energy Rates, from Docket 2008-0083 (HECO 2009 Test Year)
- 4 Source: Cost-of-service calculation, from Docket 2008-0083 (HECO 2009 Test Year)
- 5 Source: HECO Rate Case Docket No. 2010-0080 (HECO 2011 Test Year)

HELCO

Estimated Lost Contribution to Fixed Cost in 2011, based on NEM installations as-of year-end 2010

| Rate | A | B | C | D = A * B * C | E | F | G = E + (E * F) | H | I = G - H | J = D * I / 100 |
|-------|----------|----------------------------------|--|-------------------|---|---|----------------------------------|---|--|--|
| | kW | Total Hours in Year ¹ | Estimated Capacity Factor ² | Total Lost kWh/yr | Base Energy Rate ³ , cents/kWh | Effective Interim Rate Increase 2010 ⁴ , % | Eff. Base Energy Rate, cents/kWh | Production Energy Rate ⁵ , cents/kWh | Lost Contribution to Fixed Cost, cents/kWh | Total Lost Contribution to Fixed Cost, \$/Yr |
| R | 2,825.90 | 8,760 | 17.0% | 4,208,330 | 30.3198 | 2.01% | 30.9292 | 17.1460 | 13.7832 | \$580,043 |
| G | 723.22 | 8,760 | 17.0% | 1,077,019 | 32.6523 | 1.74% | 33.2205 | 17.2630 | 15.9575 | \$171,865 |
| J | 1,910.11 | 8,760 | 17.0% | 2,844,536 | 26.0258 | 1.74% | 26.4786 | 17.1930 | 9.2856 | \$264,132 |
| H | 42.00 | 8,760 | 17.0% | 62,546 | 26.2200 | 1.74% | 26.6762 | 17.2170 | 9.4592 | \$5,916 |
| P | 210.40 | 8,760 | 17.0% | 313,328 | 22.6295 | 1.17% | 22.8943 | 16.9080 | 5.9863 | \$18,757 |
| Total | 5,711.63 | | | 8,505,759 | | | | | | \$1,040,713 |

Estimated Impact on Rates in 2011, based on NEM installations as-of year-end 2010

| Rate | K = J | L | M = K / L * 100 |
|-------|--------------------------------------|---|----------------------------------|
| | Total Lost Contribution to FC, \$/Yr | Forecast 2011 Sales ⁶ kWh/Yr | Estimated Impact on Rates, c/kWh |
| R | \$580,043 | 438,846,000 | 0.13 |
| G | \$171,865 | 92,397,000 | 0.19 |
| J | \$264,132 | 333,395,000 | 0.08 |
| H | \$5,916 | 9,321,000 | 0.06 |
| P | \$18,757 | 241,021,000 | 0.01 |
| Total | \$1,040,713 | 1,114,980,000 | |

Notes:

- 1 There are 8760 hour in a non-leap year, and 8784 hours in a leap year.
- 2 Source: Estimated value
- 3 Source: Base Energy Rates, from Docket 05-0315 (HELCO 2006 Test Year)
- 4 Source: Effective Rate Summaries filed 01/19/2011
- 5 Source: Most-recently approved cost-of-service calculation, from Docket 05-0315 (HELCO 2006 Test Year)
- 6 Source: HELCO Sales Forecast

MECO - Maul Division

Estimated Lost Contribution to Fixed Cost in 2011, based on NEM installations as-of year-end 2010

| Rate | kW A | Total Hours in Year ¹ B | Estimated Capacity Factor ² C | Total Lost kWh/yr D = A * B * C | Base Energy Rate ³ , cents/kWh E | Effective Interim Rate Increase 2010 ⁴ , % F | Eff. Base Energy Rate, cents/kWh G = E + (E * F) | Production Energy Rate ⁵ , cents/kWh H | Lost Contribution to Fixed Cost, cents/kWh I = G - H | Total Lost Contribution to Fixed Cost, \$/Yr J = D * I / 100 |
|-------|-----------|--|---|---------------------------------------|---|--|--|--|---|---|
| R | 2,982,858 | 8,760 | 17.0% | 4,442,069 | 28.3356 | 2.44% | 29.0270 | 18.382 | 10.6450 | \$472,858 |
| G | 705,608 | 8,760 | 17.0% | 1,050,791 | 29.2713 | 2.44% | 29.9855 | 18.554 | 11.4315 | \$120,121 |
| J | 1,549,821 | 8,760 | 17.0% | 2,307,993 | 26.0613 | 2.44% | 26.8972 | 18.676 | 8.0212 | \$185,129 |
| H | 22,464 | 8,760 | 17.0% | 33,453 | 26.2964 | 2.44% | 26.9380 | 18.467 | 8.4710 | \$2,834 |
| P | 86,410 | 8,760 | 17.0% | 128,682 | 23.2123 | 2.44% | 23.7787 | 18.371 | 5.4077 | \$6,959 |
| Total | 5,347,159 | | | 7,962,988 | | | | | | \$787,901 |

Estimated Impact on Rates in 2011, based on NEM installations as-of year-end 2010

| Rate | Total Lost Contribution to FC, \$/Yr K = J | Forecast 2011 Sales ⁶ kWh/yr L | Estimated Impact on Rates, ¢/kWh M = K / L * 100 |
|-------|---|--|---|
| R | \$472,858 | 416,765,000 | 0.11 |
| G | \$120,121 | 92,244,000 | 0.13 |
| J | \$185,129 | 246,392,000 | 0.08 |
| H | \$2,834 | 15,403,000 | 0.02 |
| P | \$6,959 | 387,301,000 | 0.00 |
| Total | \$787,901 | 1,158,105,000 | |

Notes:

- 1 There are 8760 hour in a non-leap year, and 8784 hours in a leap year.
- 2 Source: Estimated value
- 3 Source: Base Energy Rates, from Docket 97-0346 (MECO 1999 Test Year)
- 4 Source: Effective Rate Summaries filed 01/19/2011
- 5 Source: Most-recently approved cost-of-service calculation, from Docket 97-0346 (MECO 1999 Test Year)
- 6 Source: MECO Sales Forecast

MECO - Lanal Division

Estimated Lost Contribution to Fixed Cost in 2011, based on NEM installations as-of year-end 2010

| Rate | A | Total Hours in Year ¹ | B | Estimated Capacity Factor ² | C | Total Lost kWh/yr | D = A * B * C | Base Energy Rate ³ , cents/kWh | E | Effective Interim Rate Increase 2010 ⁴ , % | F | Eff. Base Energy Rate, cents/kWh | G = E + (E * F) | Production Energy Rate ⁵ , cents/kWh | H | Lost Contribution to Fixed Cost, cents/kWh | I = G - H | Total Lost Contribution to Fixed Cost, \$/Yr | J = D * I / 100 |
|------|--------|----------------------------------|-------|--|---|-------------------|---------------|---|---|---|---|----------------------------------|-----------------|---|---|--|-----------|--|-----------------|
| R | 34.060 | 8,760 | 17.0% | | | 50,722 | | 33.0539 | | 2.68% | | 33.9397 | | 22.673 | | 11.2667 | | \$5,715 | |

Estimated Impact on Rates in 2011, based on NEM installations as-of year-end 2010

| Rate | K = J | Total Lost Contribution to FC, \$/Yr | L | Forecast 2011 Sales ⁶ kWh/Yr | Estimated Impact on Rates, ¢/kWh | M = K / L * 100 |
|------|---------|--------------------------------------|------|---|----------------------------------|-----------------|
| R | \$5,715 | 7,392,000 | 0.08 | | | |

Notes:

- 1 There are 8760 hour in a non-leap year, and 8784 hours in a leap year.
- 2 Source: Estimated value
- 3 Source: Base Energy Rates, from Docket 97-0346 (MECO 1999 Test Year)
- 4 Source: Effective Rate Summaries filed 01/05/2010
- 5 Source: Most-recently approved cost-of-service calculation, from Docket 97-0346 (MECO 1999 Test Year)
- 6 Source: MECO Sales Forecast

MECO - Molokai Division

Estimated Lost Contribution to Fixed Cost in 2011, based on NEM installations as-of year-end 2010

| Rate | kW | Total Hours in Year ¹ | Estimated Capacity Factor ² | Total Lost kWh/yr | Base Energy Rate ³ , cents/kWh | Effective Interim Rate Increase 2010 ⁴ , % | Eff. Base Energy Rate, cents/kWh | Production Energy Rate ⁵ , cents/kWh | Lost Contribution to Fixed Cost, cents/kWh | Total Lost Contribution to Fixed Cost, \$/Yr |
|-------|---------|-------------------------------------|--|----------------------|--|---|-------------------------------------|---|--|--|
| | | | | | | | | | | |
| R | 248,315 | 8,760 | 17.0% | 368,791 | 34.3320 | 2.38% | 35.1491 | 21.876 | 13.2731 | \$49,083 |
| G | 45,715 | 8,760 | 17.0% | 68,079 | 41.0012 | 2.38% | 41.9770 | 22.297 | 19.6800 | \$13,398 |
| J | 113,430 | 8,760 | 17.0% | 168,920 | 33.7416 | 2.38% | 34.5447 | 22.261 | 12.2837 | \$20,750 |
| H | 50,295 | 8,760 | 17.0% | 74,899 | 30.4859 | 2.38% | 31.2115 | 21.925 | 9.2865 | \$6,955 |
| P | 100,000 | 8,760 | 17.0% | 148,920 | 29.7736 | 2.38% | 30.4822 | 21.738 | 8.7442 | \$13,022 |
| Total | 557,755 | | | 830,609 | | | | | | \$103,208 |

Estimated Impact on Rates in 2011, based on NEM installations as-of year-end 2010

| Rate | Total Lost Contribution to FC, \$/Yr | Forecast 2011 Sales ⁶ kWh/Yr | Estimated Impact on Rates, ¢/kWh | | |
|-------|--|---|--|---------|-----|
| | | | | $K = J$ | L |
| R | \$49,083 | 12,169,100 | 0.40 | | |
| G | \$13,398 | 4,113,700 | 0.33 | | |
| J | \$20,750 | 7,007,400 | 0.30 | | |
| H | \$6,955 | 1,515,500 | 0.46 | | |
| P | \$13,022 | 5,138,000 | 0.25 | | |
| Total | \$103,208 | 29,943,700 | | | |

Notes:

- 1 There are 8760 hour in a non-leap year, and 8784 hours in a leap year.
- 2 Source: Estimated value
- 3 Source: Base Energy Rates, from Docket 97-0346 (MECO 1999 Test Year)
- 4 Source: Effective Rate Summaries filed 01/19/2011
- 5 Source: Most-recently approved cost-of-service calculation, from Docket 97-0346 (MECO 1999 Test Year)
- 6 Source: MECO Sales Forecast